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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/687,907	10/17/2003	David P. Hannum	10971353-3	1941

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EXAMINER

TRAN, DENISE

ART UNIT PAPER NUMBER

2186

DATE MAILED: 12/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicati n N .

10/687,907

Applicant(s)

HANNUM ET AL.

Examiner

Denise Tran

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 September 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,6-13 and 16-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3,6-13 and 16-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 October 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The applicant's amendment's filed 9/28/04 has been considered. Claims 1-3, 6-13, and 16-19 are presented for examination. Claims 4-5, 14-15, and 20 have been canceled.
2. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: in particular, the specification is failing to provide proper antecedent basis for the claimed subject matter, claim 1, lines 5-6, the step or means for "prohibiting said prospective entries from having said illegal values under normal program execution conditions." Claim 11 has the similar problems as discussed above.
3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, claim 1, lines 5-6, the step or means for "prohibiting said prospective entries from having said illegal values under normal program execution conditions;" and claim 11 has the similar problems as discussed above must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure

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number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

4. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

5. Claim(s) 1-16 of patent No. US 6,823,434 contain(s) every element of claim(s) 1-3, 6-13, and 16-19 of the instant application and as such anticipate(s)

claim(s) 1-3, 6-13, and 16-19 of the instant application.

"A later patent claim is not patentably distinct from an earlier patent claim if the later claim is obvious over, or **anticipated by**, the earlier claim. In re Longi, 759 F.2d at 896, 225 USPQ at 651 (affirming a holding of obviousness-type double patenting because the claims at issue were obvious over claims in four prior art patents); In re Berg, 140 F.3d at 1437, 46 USPQ2d at 1233 (Fed. Cir. 1998) (affirming a holding of obviousness-type double patenting where a patent application claim to a genus is anticipated by a patent claim to a species within that genus). " **ELI LILLY AND COMPANY v BARR LABORATORIES, INC.**, United States Court of Appeals for the Federal Circuit, ON PETITION FOR REHEARING EN BANC (DECIDED: May 30, 2001).

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-2, 7-8, 10-12, and 17-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Miller et al., U.S. Patent No. 5,809,528 (hereinafter Miller).

As per claim 19, Miller teaches a system for disabling matching of prospective entries with tables entries resident in a fully associative table (e.g., col. 15, lines 35-60; col. 11, lines 55-65), the system comprising: a plurality of entry locations in said fully associative table (e.g., fig. 1, el. 104; col. 11, line 55-65); and a force update command for causing said plurality of entry locations to acquire predetermined illegal bit values not

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present in prospective entries at ports connected to said fully associative table (e.g., col. 15, lines 35-50; col. 16, lines 10-15).

As per claims 1 and 11, Miller teaches a method/system for preventing matching of prospective entries with table entries stored in a fully associative table (e.g., col. 15, lines 40-50), the method/system comprising:

Writing illegal values to substantially all of said table entries in said fully associative table (e.g., col. 15, lines 40-60 and col. 16, lines 10-15);

Prohibiting said prospective entries from having said illegal values under normal program execution conditions (e.g., col. 11, lines 55-60 and col. 15, lines 45-46), thereby preventing any matching conditions between said table entries and said prospective entries (e.g. col. 15, lines 40-50).

As per claims 8 and 18, Miller shows storing memory addresses in said fully associative table (e.g. col. 15, lines 40-50).

As per claims 2 and 12, Miller teaches writing to be performed during power up of a system (e.g., col. 15, lines 35-50).

As per claims 7 and 17, Miller teaches updating entries in a fully associative table employing a pointer to indicate a first table location containing an invalid entry (e.g., col. 16, lines 19-30; i.e., an invalid address is a first table location).

As per claim 10, Miller shows a force update command for causing a plurality of entry locations in a table to acquire predetermined illegal value (e.g., col. 15, lines 35-45; col. 5, lines 15-40).

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8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 6, 9, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miller et al., U.S. Patent No. 5,809,528 (hereinafter Miller), in view of Geva, U.S. 6539541, (hereinafter Geva).

As per claims 6, 9, and 16, Miller shows the fully associative table (e.g., fig. 1; col. 11, lines 55-60) for finding and validating data (e.g., fig. 1; col. 11, lines 55-60). Lozano does not explicitly shows a most recent advanced load instruction for a given check instruction or storing register numbers. Geva shows a most recent advanced load instruction for a given check instruction (e.g., col. 14, lines 15-65) and storing register numbers (e.g., col. 14, lines 20-30). It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the teaching of Geva into the system of Miller because it would allow handling advanced loads in a cache system; thereby, increasing the performance and speed processing of the system.

10. Claims 3 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miller et al., U.S. Patent No. 5,809,528 (hereinafter Miller), in view of Hale et al., U.S. 6564317, (hereinafter Hale).

As per claims 3 and 13, Miller does not explicitly show said writing step is initiated by executing a specific machine specific instruction. Hale shows writing step initiated by executing a specific machine specific instruction (e.g., col. 9, lines 30-45). It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the teaching of Hale into the system of Miller because it would allow a secure boot process when performing initialization of a computer system upon power up or system reset.

11. Applicant's arguments filed 8/29/04 have been fully considered but they are not persuasive.

12. In the remarks, the applicant argued that because Miller does not teach values which a prospective entry would preferably not acquired in a normal course of program execution, it does not teach "a force update command . . . illegal bit values not present in prospective entries at ports connected to said fully associative table."

The examiner disagreed with the applicant's arguments because Miller teaches values which a prospective entry would preferably not acquired in a normal course of program execution (e.g., col. 11, lines 55-60; col. 15, lines 35-50). According to, col. 15, lines 35-50, Miller teaches values (i.e., invalid values) which a prospective entry (i.e., a requested entry at port) would not acquired in a normal course of program execution (i.e., the prospective entry only has address bits, data bits at ports and does not have invalid bits at ports in a normal course program execution); therefore, Miller teaches a

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force update command for causing said plurality of entry locations to acquire predetermined illegal bit values not present in prospective entries at ports connected to said fully associative table (e.g., col. 15, lines 35-50; col. 11, lines 55-60; col. 16, lines 10-15).

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Denise Tran whose telephone number is (571) 272-4189. The examiner can normally be reached on Monday, Thursday, and Friday from 8:45 a.m. to 5:15 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matt Kim, can be reached on (571) 271-4182. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



D.T.

December 26, 2004